



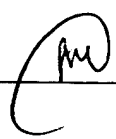
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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|--|-------------|----------------------|---------------------|------------------|
| 10/805,931 | 03/22/2004 | Srinath K. Aanegola | GLOZ 2 00138 | 1030 |
| 27885 | 7590 | 01/19/2006 | EXAMINER | |
| FAY, SHARPE, FAGAN, MINNICH & MCKEE, LLP 1100 SUPERIOR AVENUE, SEVENTH FLOOR CLEVELAND, OH 44114 | | | CRANSON JR, JAMES W | |
| | | | ART UNIT | PAPER NUMBER |
| | | | 2875 | |

DATE MAILED: 01/19/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | | |
|------------------------------|-------------------------------|---------------------------------|--|
| Office Action Summary | Application No. 10/805,931 | Applicant(s) AANEGOLA ET AL. | |
| | Examiner James W. Cranson | Art Unit 2875 |  |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 December 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) 13-15 is/are withdrawn from consideration.
- 5) ☒ Claim(s) 16-20 is/are allowed.
- 6) ☒ Claim(s) 1-4, 7, 8, 11, 12 is/are rejected.
- 7) ☒ Claim(s) 5, 6, 9 and 10 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date <u>3/22/04, 7/07/04</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

Applicant's election without traverse of Group I, claims 1-12 and 16-20, in the reply filed on 12/01/2005 is acknowledged.

Claim Rejections - 35 USC § 103

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 1-4, 7, 8 and 11-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over WO 02/09770 to Southard et al.

Southard discloses an LED light engine comprising flexible cable, plural parallel electrical conductors, insulating material, plural LEDs, plural leads, plural prongs with tips and power conditioning electronics to convert AC power to DC power. Southard does not disclose a third electrical conductor or specifically a third LED.

Regarding claim 1:

Southard discloses a light emitting diode (LED) light engine (90) that comprises a flexible electrical cable (100) including first (112) and second (114) electrical conductors and an electrically insulating covering material (abstract) for the electrical conductors, conductors arranged substantially parallel with one another and having the insulating covering material

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therebetween; a plurality of LEDs (102) including a first LED (104) having a first lead (130p) electrically connected to the first electrical conductor and a second lead (130n) electrically connected to the second conductor, a second LED having a first lead electrically connected to the second electrical conductor; a plurality of prongs (144p, 144n) wherein each prong is in electrical communication with a respective lead of one of the LEDs, wherein each prong includes a tip adapted to pierce the insulating material of the flexible electrical cable and a gap for receiving one of the conductors; and power conditioning electronics (210, 220) electrically connected to the first and third conductors, wherein the power conditioning electronics are adapted to convert AC power to DC power. It would have been obvious to one of ordinary skill in the art at the time of invention to provide Southard with a third electrical conductor and a third LED because Southard discloses on page 10, lines 25-30 "It is to be understood that although the embodiments have been described with reference to a single LED 20 (FIG. 1) and a single LED connector 54 (FIG. 3) on the conductors 12, 52, respectively, a **plurality** of LEDs 20 (FIG. 1) and LED connectors 54 (FIG. 3) on the conductors 12, 52, respectively, are **contemplated** so that the light engines 10, 40 form respective LED strips. Furthermore, the LEDs 20 (FIG. 1) and LED connectors 54 (FIG. 3) on the conductors 12, 52 of the respective LED light strips 10, 40 are preferably spaced about two (2) inches apart from each other. However, other spacings between the LEDs 20 and the LED connectors 54 are also contemplated."

Regarding claim 2, according to claim 1, as modified above:

Southard discloses a plurality of socket housings mechanically affixed to cable, each socket housing gets at least one LED (page 5, lines 5-16)

Regarding claim 3, according to claim 2 :

Southard discloses a plurality of socket housings mechanically affixed to cable, each socket housing gets at least one LED and one prong (page 5, lines 5-16)

Regarding claim 4, according to claim 2 :

Southard discloses a mounting portion for allowing light engine to mount an associated structure attached to socket housing (page 5, lines 29-31)

Regarding claim 7, according to claim 1 as modified above:

Southard discloses an insulation barrier that separates the second electrical conductor to prevent an electrical connection between first and second leads through second electrical conductor.

Regarding claim 8, according to claim 1 as modified above:

It is well known in the electrical connection art that a wire is disposed inside an electrical cable for the purpose of delivering information through the cable.

Regarding claim 11, according to claim 1 as modified above:

Southard discloses and illustrates a channel letter in figure 7.

Regarding claim 12, according to claim 1 as modified above:

Southard discloses that a plurality of LEDs, connectors and leads are contemplated.

Allowable Subject Matter

Claims 5,6, 9 and 10 objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter:

Claim 5, according to claim 2 adds that at least one of the socket housings includes first

section that selectively fastens to a second section, wherein flexible cable is sandwiched between the first section and the second section such that a plane that intersects each of the electrical conductors is substantially perpendicular to a plane in which the LED that is received in the at least one socket resides.

. This combination is limitations is not found or taught in the art of record.

Claim 6, according to claim 2 adds that at least one of the socket housings includes a member adapted to puncture the electrically insulating covering material and electrically separates the second electrical conductor when the first section is fastened to the second section, whereby preventing electricity from flowing through the second electrical conductor.

This combination is limitations is not found or taught in the art of record.

Claim 9, according to claim 8 adds a controller that is not in the art of record.

Claim 10 depends from claim 9 and would be allowable for the same reasons.

Claims 16-20 are allowed.

The following is an examiner's statement of reasons for allowance: Independent claim has a light string that includes a continuous series conductor and that the second plurality of LEDs are connected in series. The prior art of record does not have a light string that includes a continuous series conductor and that the second plurality of LEDs are connected in series.

Claims 17-20 depend from claim 16 and are allowable for the same reasons.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue

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fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

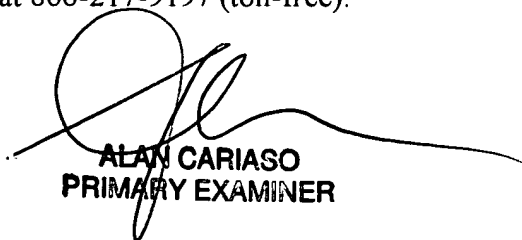
The prior art made of record and not relied upon is considered pertinent to applicant's disclosure are USPN 6,660,935 to Southard et al. and US 2003/0063463 to Wu et al.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to James W. Cranson whose telephone number is 571-272-2368. The examiner can normally be reached on Mon-Fri 8:30A.M.- 5:00P.M..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sandy O'Shea can be reached on 571-272-2378. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).





ALAN CARIASO
PRIMARY EXAMINER